

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
William A. Hinton State Laboratory Institute  
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

12/15/10

Rebecca Geehr  
Assistant District Attorney, Suffolk County

Dear ADA Geehr,

Enclosed is the information you requested in regards to Commonwealth vs. [REDACTED] Included are copies of the following:

1. Drug Analysis Laboratory Receipt.
2. Curriculum Vitae for Annie Khan, and Peter Piro.
3. Control Cards with analytical results for samples # [REDACTED]
4. Analysis sheets with chemist's hand notations and test results.
5. GC/Mass Spectral analytical data for samples # [REDACTED]

I, Annie Khan (Dookhan), was the custodial chemist and performed the preliminary testing and net weight for this sample. Peter Piro was the confirmatory chemist and analyzed the GC/MS data for this sample.

If you have any questions about these materials, please call me at the number below.

Sincerely,

A handwritten signature in black ink, appearing to read "Annie Khan".  
Annie Khan (Dookhan)  
Chemist II  
Drug Analysis Lab  
Jamaica Plain, MA. 02130  
(617) 983-6631  
[Annie.Khan@state.ma.us](mailto:Annie.Khan@state.ma.us)



## **DRUG RECEIPT**

CC #

BOOK # 60

PAGE # 176

**DESTRUCTION #**

District/Unit C-11/D.C.U.

Name & Rank of Arresting Officer P.O. Miskell ID# 11719

**To be completed by ECU personnel only**

**Name and Rank of Submitting Officer**

Received by

Date 8/10/12

ECU Control #

## Curriculum Vitae

### **Annie Khan (Dookhan)**

#### **Education:**

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.  
University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

#### **Experience:**

2003 – present

#### Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

\*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

\*Appointed Assistant Analyst by Assistant Commissioner of Public Health, January 2004.

\*Responsible for the identification of drugs to determine violations of harmful and narcotic drug laws.

\*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

\*Maintenance and repairs of all analytical instruments.

\*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.

\* Responsible for the Quality Control/Quality Assurance program for the drug lab.

\*Notary Public.

\*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

#### QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

\*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.

\*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.

\*Writing, revising and reviewing Standard Operating Procedures (SOPs).

\*Routine QC testing of products for the FDA.

\*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

\*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

\*Complete testing of chemicals for Vendor Validation Project for the FDA.

\*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

#### **Additional Training:**

Dept. of Justice – Forensics Professionals.

GLP/GMP course with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS courses with Agilent Technologies and Restek.

HPLC course with Waters Cooperation.

FTIR course with Spectros.

TOC training with MBL and Sievers.

#### **Association:**

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

# Curriculum Vitae

Peter Piro

## EDUCATION

Boston University

### **B.A. in Chemistry and Minor in Biology, 1989**

## HONORS

**Magna Cum Laude, 3.6 GPA**

### **Graduated with Distinction in Chemistry**

### **Valedictorian of the Chemistry Department**

## **EXPERIENCE**

## **Department of Public Health/State Laboratory Institute**

**Laboratory Supervisor I/Chemist III, II, I/ Assistant Analyst December 1991-Present**  
Supervise the operation and maintenance of the Gas Chromatography/Mass Spectrometry Laboratory. Train staff and coordinate schedules. Analyze controlled substances for State and Federal law enforcement agencies. Develop, oversee, and make improvements to the GC/MS laboratory's quality assurance/quality control (QA/QC) program. Serve as the Technical Supervisor of the Drug Analysis Laboratory. Responsible for planning and implementing Quality Improvement (QI) projects. Make recommendations for protocols and procedures by developing methods so work can be performed in an accurate and efficient manner. Qualified as an expert witness in Massachusetts courts and U.S. District Court.

Massachusetts Health Research Institute

## Laboratory Technician

September 1990-December 1991

**Researched the seasonal and special occurrences of DSP and PSP in shellfish samples harvested from coastal waters and Georges Bank using cELISA and bioassays.**

## TRAINING AND ORGANIZATIONS

- \* Completed a six-week training course by senior staff within the Department of Public Health Drug Analysis laboratory.
  - \* Appointed Assistant Analyst by the Assistant Commissioner of Public Health in February 1991.
  - \* Elected as a Regular Member to the Northeastern Association of Forensic Chemists on October 27<sup>th</sup> 1995 and a member of the Massachusetts Organization of State Engineers and Scientists.
  - \* Completed training in Mass Spectrometry given by the Food and Drug Administration/Forensic Chemistry Center on November 2002.
  - \* Completed training in Mass Spectrometry Troubleshooting and Maintenance, October 25<sup>th</sup> 2002, at Agilent Technologies.\* Notary Public since 1993.

No. [REDACTED]

Date Analyzed: 11-15-10

City: Boston D.C.U. Police Dept.

Officer: P.O. Diana Lopez

Def: [REDACTED]

Amount: 3.0

Subst: TAB

No. Cont: 1 Cont: pb

Date Rec'd: 08/10/2010

No. Analyzed:

Gross Wt.: 2.89

Net Weight: 1.8

# Tests: 1 ASS

Prelim: Buprenorphine

Findings: Buprenorphine  
•2P/PnD

# DRUG POWDER ANALYSIS FORM

SAMPLE # [REDACTED] AGENCY Boston ANALYST A59

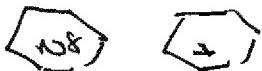
No. of samples tested: \_\_\_\_\_ Evidence Wt. \_\_\_\_\_

PHYSICAL DESCRIPTION: Gross Wt ( ) : \_\_\_\_\_

3 orange hexagonal tablet Gross Wt ( ) : \_\_\_\_\_

(7.18) Pkg. Wt: \_\_\_\_\_

Net Wt: 1.1815



## PRELIMINARY TESTS

### Spot Tests

Cobalt Thiocyanate ( )

Marquis \_\_\_\_\_

Froehde's \_\_\_\_\_

Mecke's \_\_\_\_\_

### Microcrystalline Tests

Gold Chloride \_\_\_\_\_

TLTA ( ) \_\_\_\_\_

### OTHER TESTS

Micromass ATP

## PRELIMINARY TEST RESULTS

RESULTS Buprenorphine

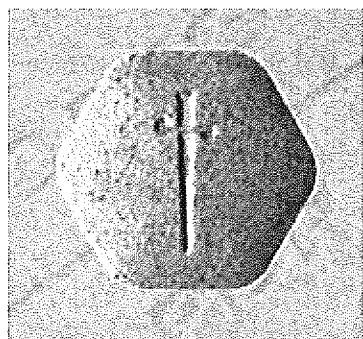
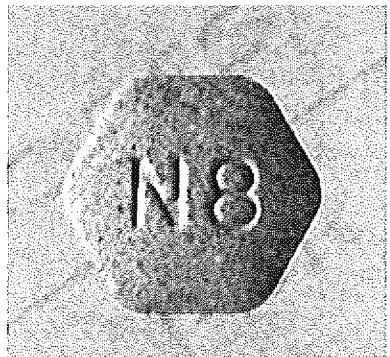
DATE 11-9-10

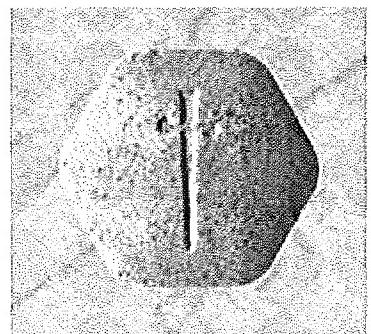
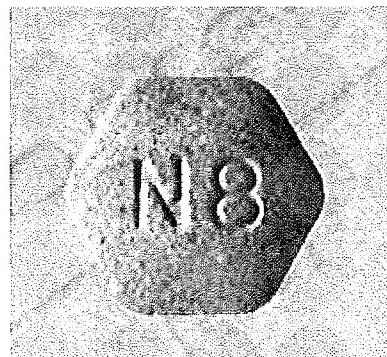
## GC/MS CONFIRMATORY TEST

RESULTS Buprenorphine

MS OPERATOR PJO

DATE 11-15-10

**POISINDEX® Product List****Suboxone****Regulatory-Status:** Schedule III**Ingredients****Active-Ingredients:** Naloxone - 2 MG  
Buprenorphine - 8 MG**Availability & Manufacturing****Availability:** United States**Available-Container-Size:** Bottle of 30**Contact:** Reckitt Benckiser**Product ID:** 6370996**AAPCC Code:** 200625 - Buprenorphine**Registry Number:** NDC 12496-1306-02**Physical Description****Imprint:** N8; Sword Logo**Form:** Tablet**Color:** orange**Shape:** Six-sided**Images for NDC 12496-1306-02****Images for NDC 12496-1306-02**



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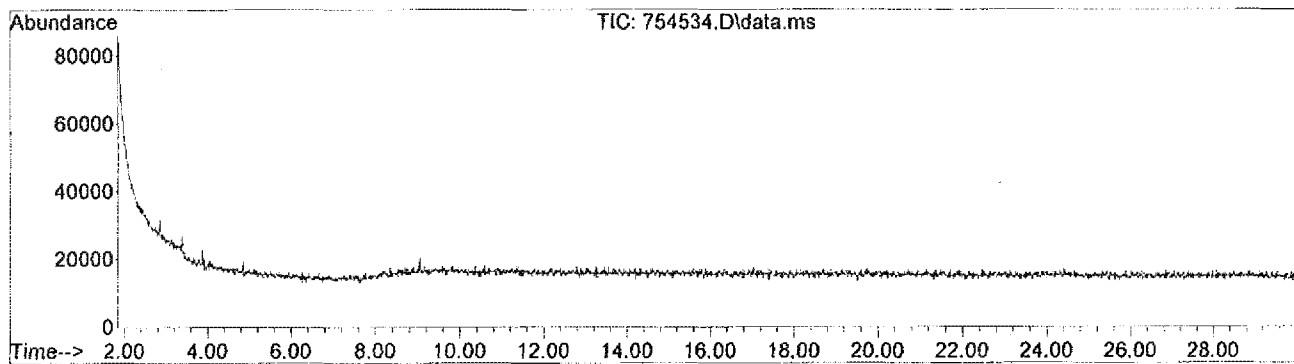
## Area Percent / Library Search Report

*/PPIro*

12-7-10

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Operator : P.PIRO  
Date Acquired : 12 Nov 2010 23:33  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

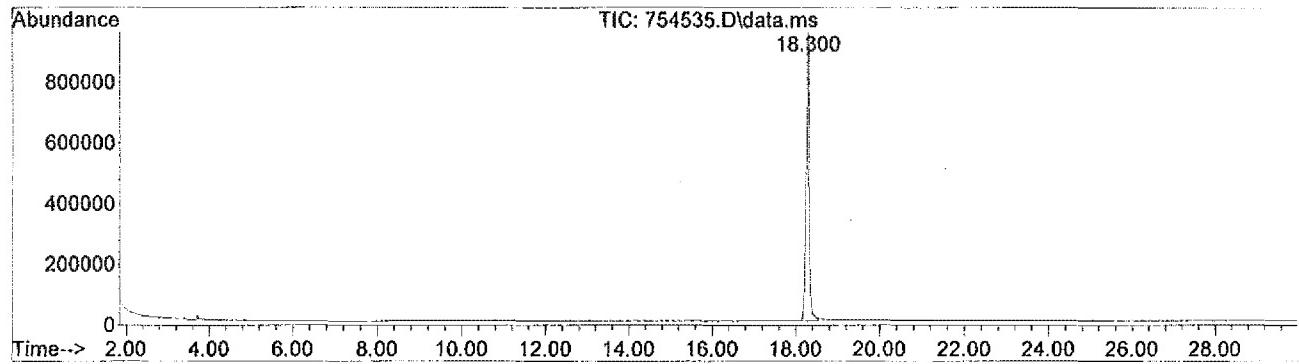
Area Percent / Library Search Report

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Operator : P.PIRO  
Date Acquired : 13 Nov 2010 00:06  
Sample Name : BUPRENORPHINE STD  
Submitted by :  
Vial Number : 35  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
18.300	4585580	100.00	100.00

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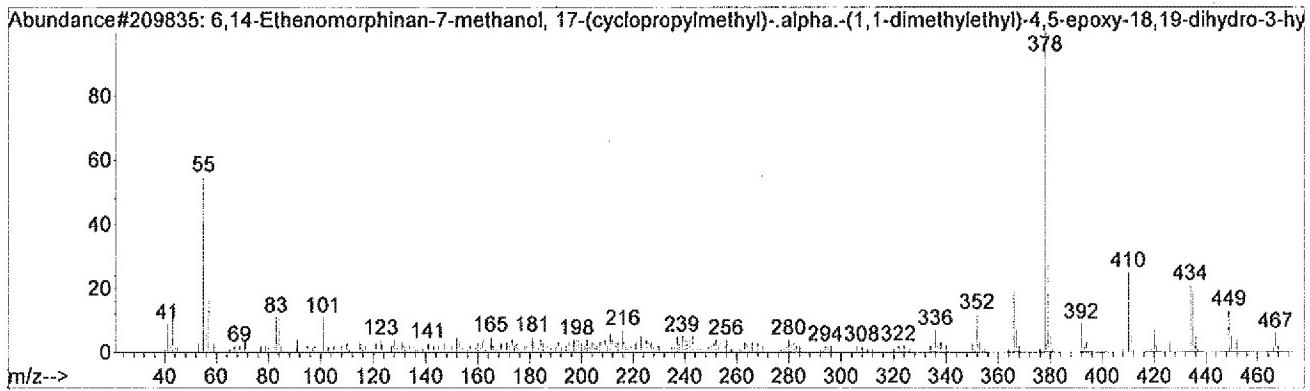
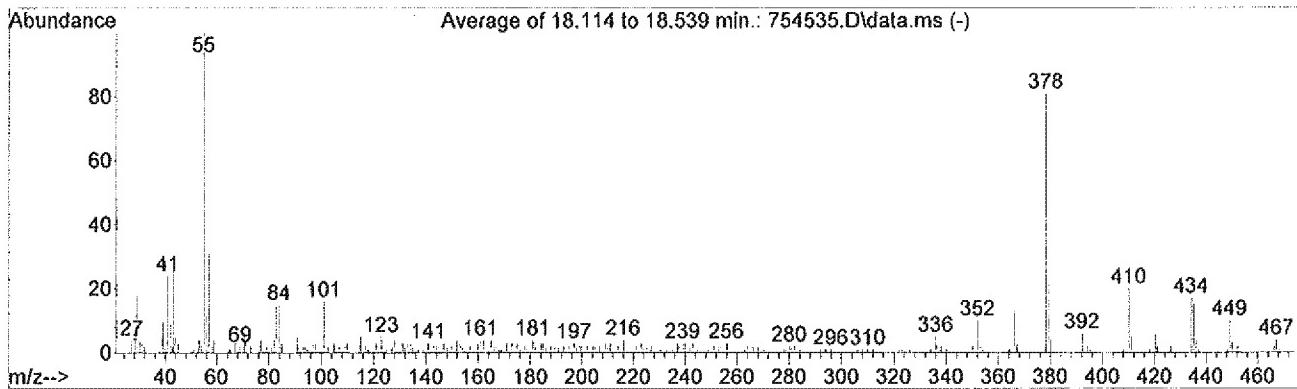
## Area Percent / Library Search Report

## Information from Data File:

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Operator : P.PIRO  
Date Acquired : 13 Nov 2010 00:06  
Sample Name : BUPRENORPHINE STD  
Submitted by :  
Vial Number : 35  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST08.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	18.30	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	94



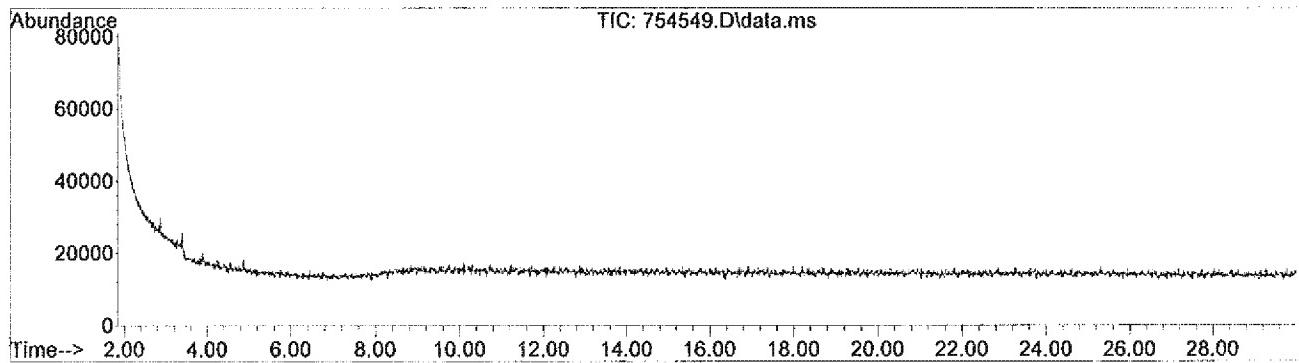
Area Percent / Library Search Report

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Operator : P.PIRO  
Date Acquired : 13 Nov 2010 7:49  
Sample Name : BLANK  
Submitted by : ASD  
Vial Number : 1  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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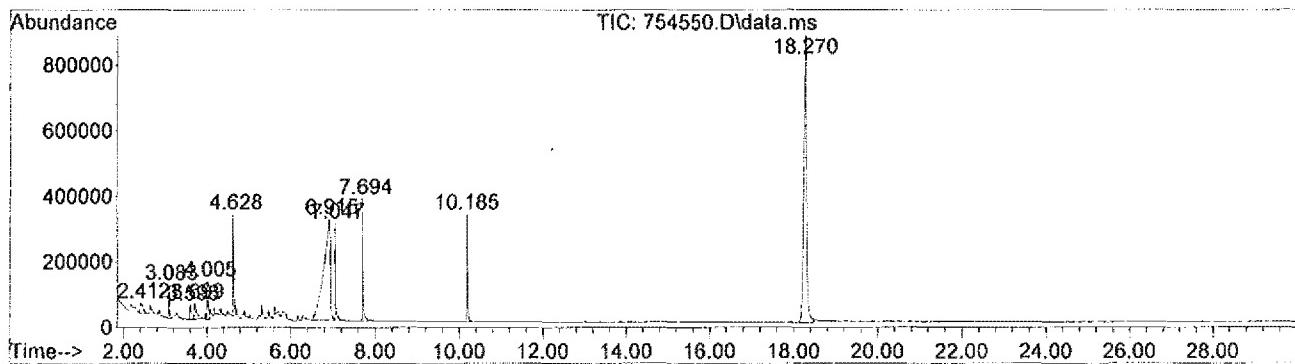
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\*\*\*NO INTEGRATED PEAKS\*\*\*

Area Percent / Library Search Report

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Operator : P.PIRO  
Date Acquired : 13 Nov 2010 8:22  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 50  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
2.412	168626	1.68	4.17
3.083	159007	1.58	3.93
3.598	127402	1.27	3.15
3.699	192489	1.92	4.76
4.005	234153	2.33	5.79
4.628	432175	4.31	10.69
6.915	3383354	33.71	83.70
7.047	331515	3.30	8.20
7.694	457640	4.56	11.32
10.185	507481	5.06	12.55
18.270	4042357	40.28	100.00

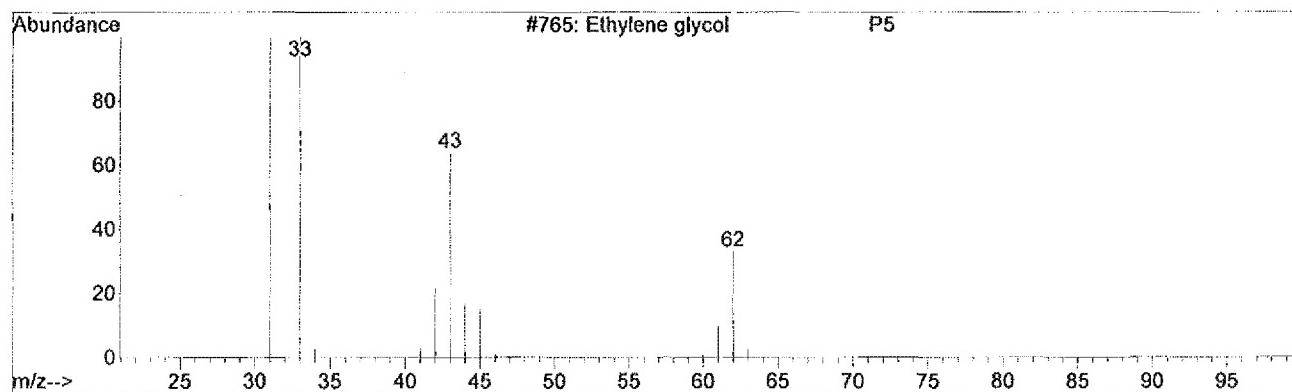
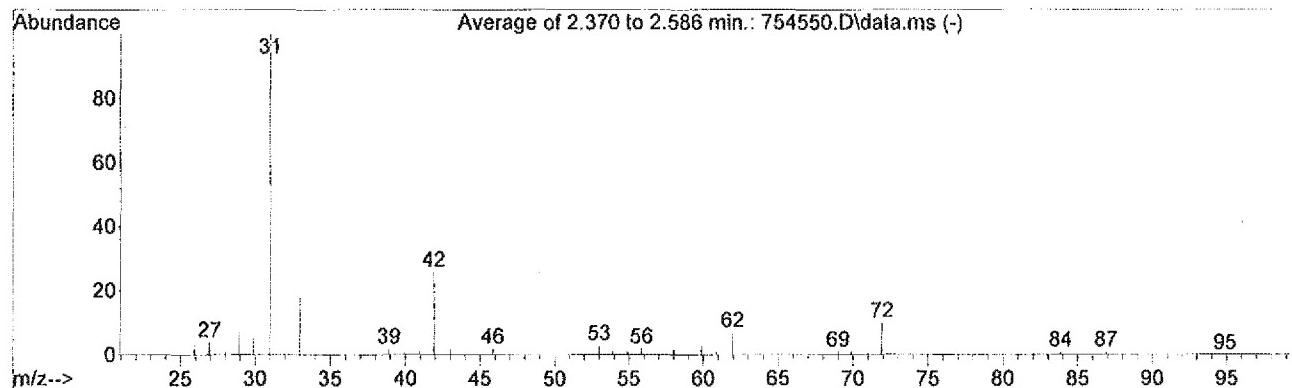
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Date Acquired : 13 Nov 2010 8:22  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 50  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST08.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
1	2.41	C:\Database\PMW_TOX2.L		
		Ethylene glycol	000107-21-1	7
		Propranolol-M -H2O isomer-2 2AC	000000-00-0	1
		Acephate -C2H2O TFA	000000-00-0	1



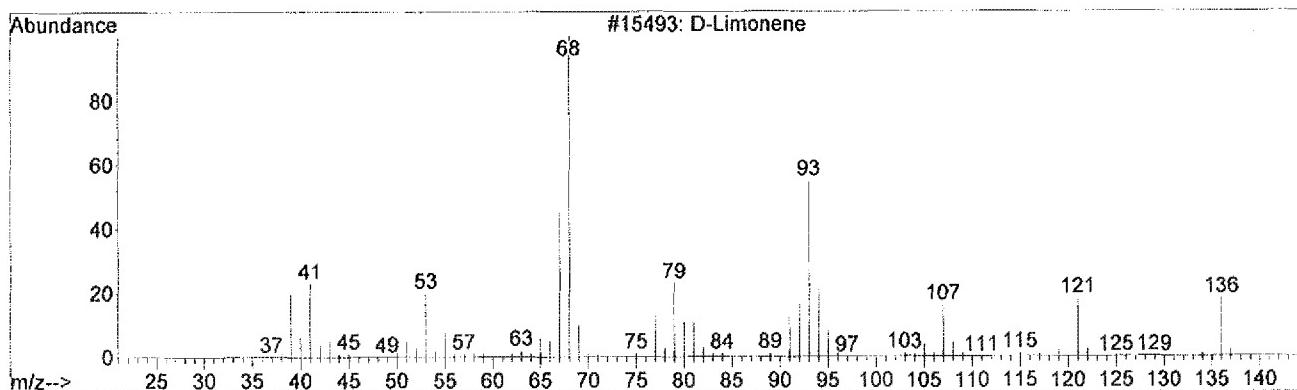
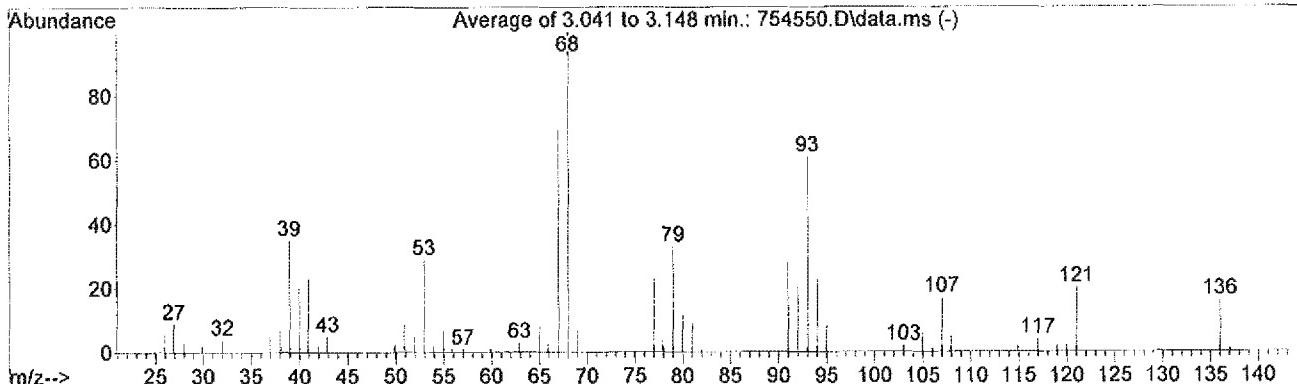
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 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries:	C:\Database\SLI.L	Minimum Quality: 80
	C:\Database\NIST08.L	Minimum Quality: 80
	C:\Database\PMW_TOX2.L	

PK#	RT	Library/ID	CAS#	Qual
2	3.08	C:\Database\NIST08.L		
		D-Limonene	005989-27-5	94
		D-Limonene	005989-27-5	93
		D-Limonene	005989-27-5	91



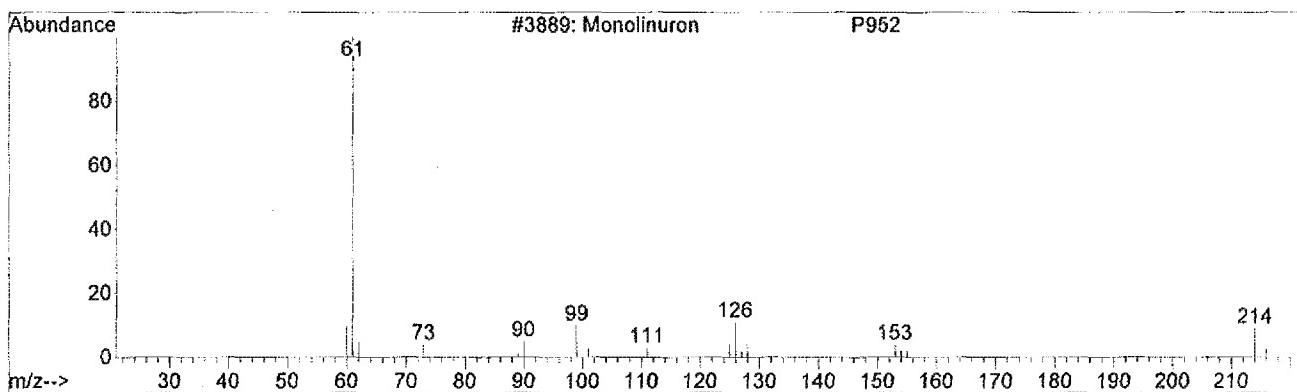
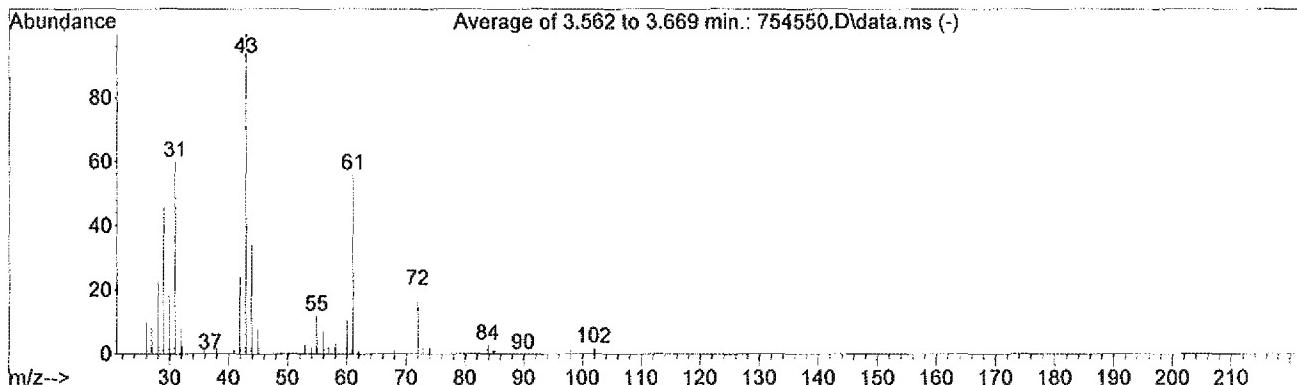
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 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
 C:\Database\NIST08.L Minimum Quality: 80  
 C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
3	3.60	C:\Database\PMW_TOX2.L		
		Monolinuron	001746-81-2	2
		Ethylacetate	@ 000141-78-6	2
		Acetic acid anhydride	000108-24-7	2



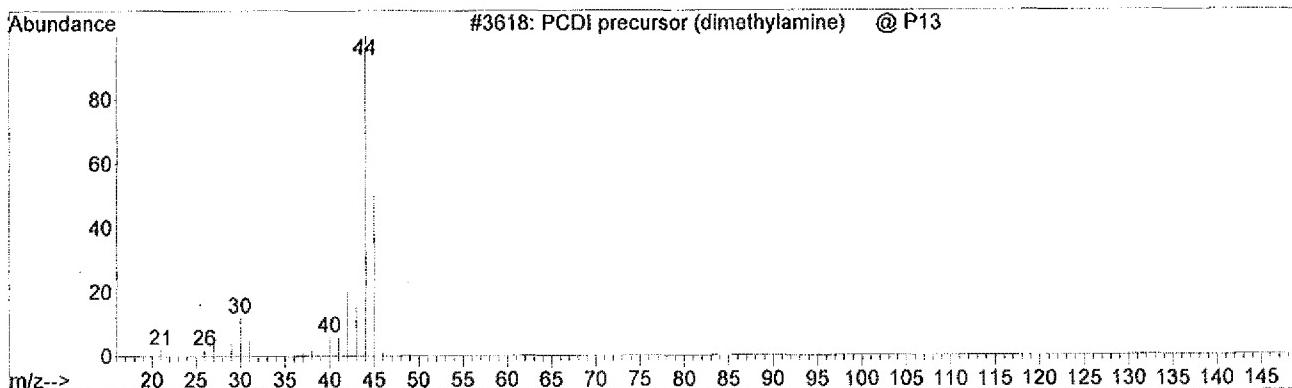
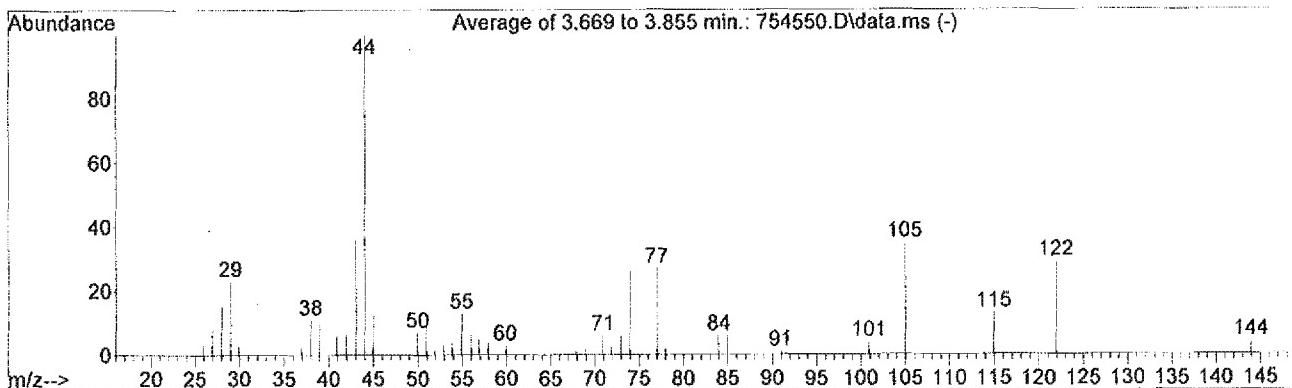
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Vial Number : 50  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST08.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
4	3.70	C:\Database\PMW_TOX2.L		
		PCDI precursor (dimethylamine)	000124-40-3	2
		Air with Helium and Water	000000-00-0	1



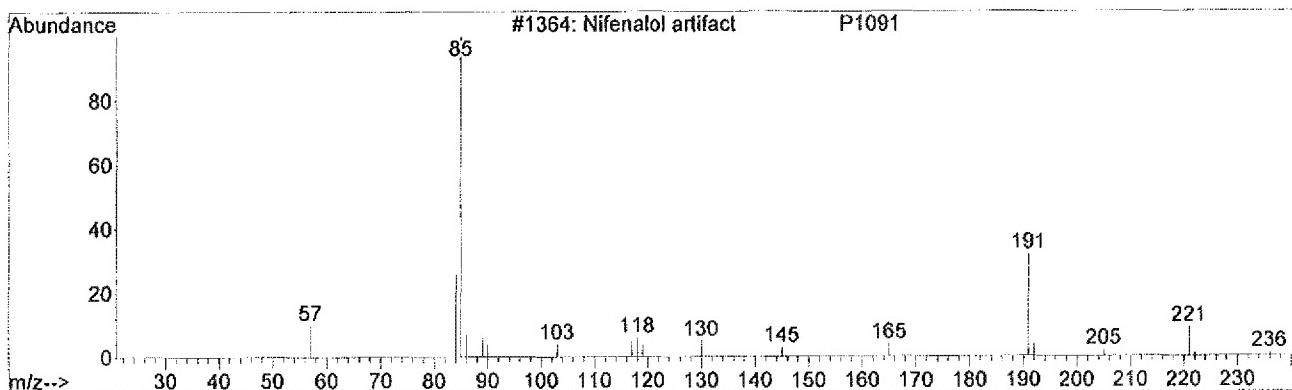
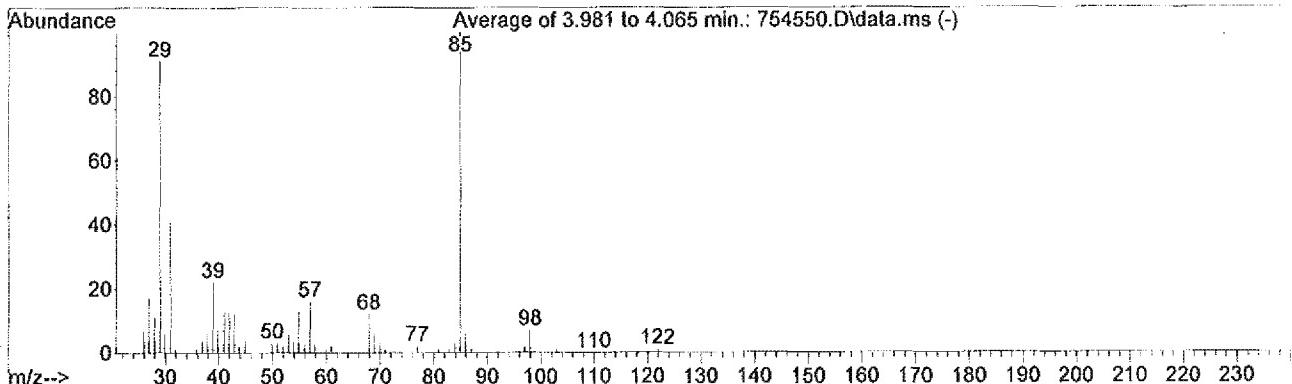
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 Date Acquired : 13 Nov 2010 8:22  
 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries:	C:\Database\SLI.L	Minimum Quality: 80
	C:\Database\NIST08.L	Minimum Quality: 80
	C:\Database\PMW_TOX2.L	

PK#	RT	Library/ID	CAS#	Qual
5	4.00	C:\Database\PMW_TOX2.L		
		Nifenalol artifact	000000-00-0	2
		Dichlorodifluoromethane	@ 000075-71-8	1
		Mefruside ME	000000-00-0	1



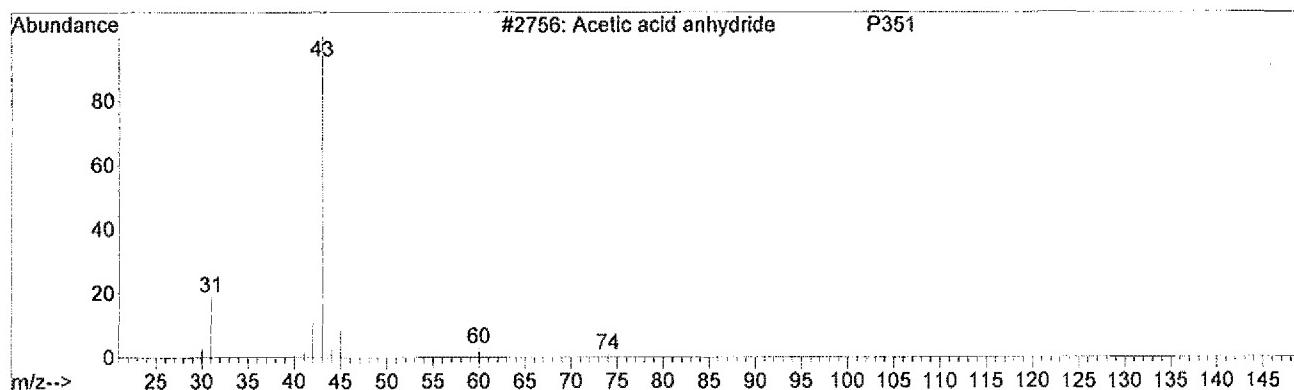
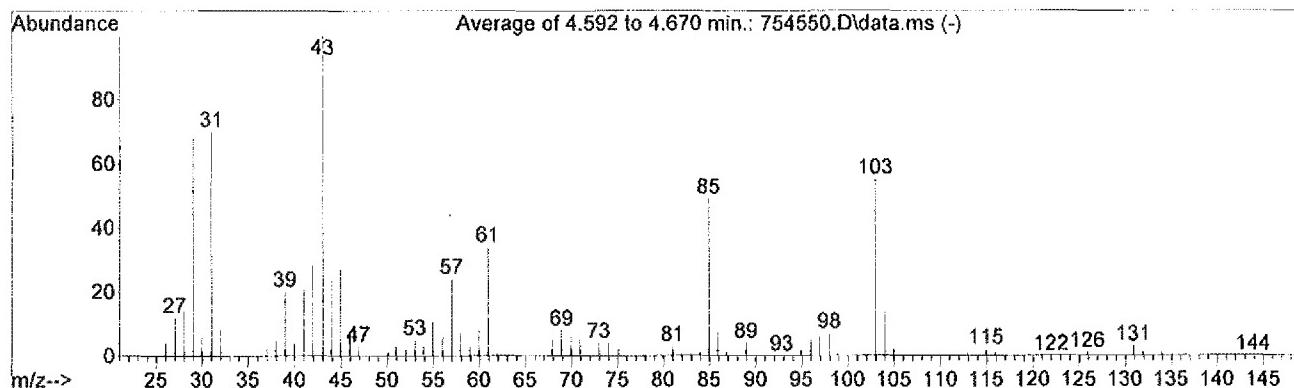
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Information from Data File:

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Date Acquired : 13 Nov 2010 8:22  
Sample Name : XXXXXXXXXX  
Submitted by : ASD  
Vial Number : 50  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
C:\Database\NIST08.L Minimum Quality: 80  
C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
6	4.63	C:\Database\PMW_TOX2.L		
		Acetic acid anhydride	000108-24-7	9
		Octane	000111-65-9	4
		Ethylene glycol	000107-21-1	4



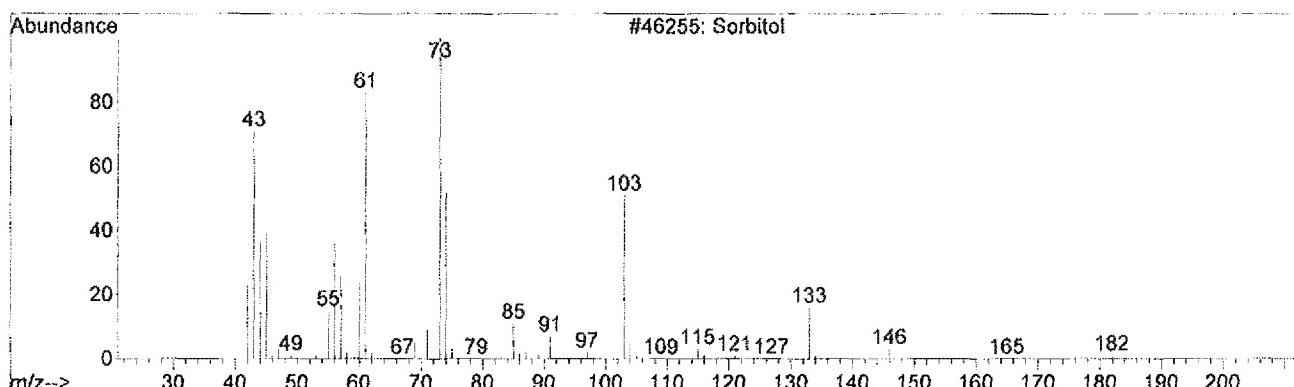
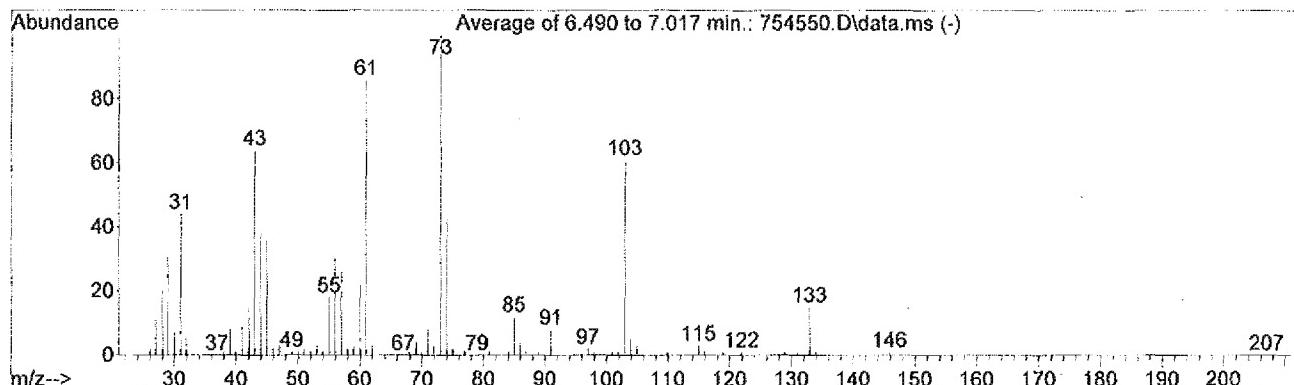
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 Date Acquired : 13 Nov 2010 8:22  
 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
 C:\Database\NIST08.L Minimum Quality: 80  
 C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
7	6.92	C:\Database\NIST08.L		
		Sorbitol	000050-70-4	91
		Sorbitol	000050-70-4	83
		D-Mannitol	000069-65-8	78



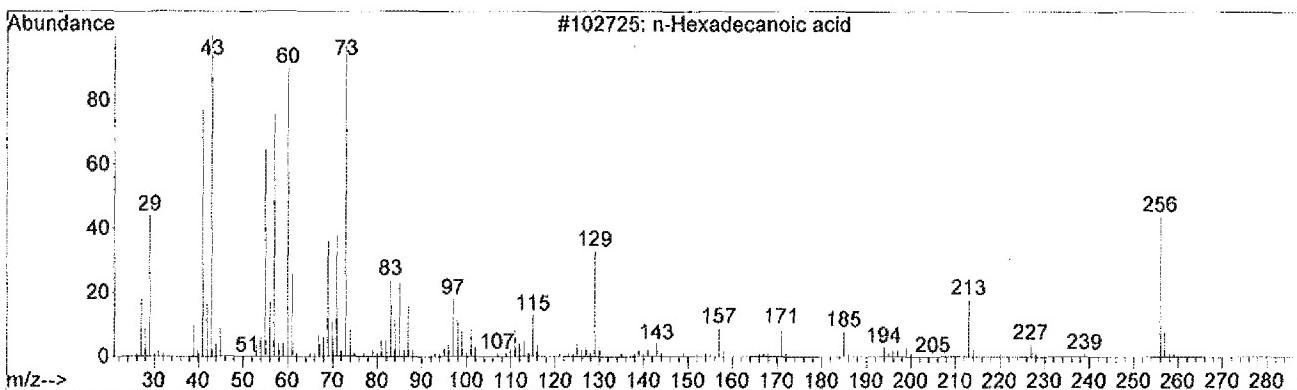
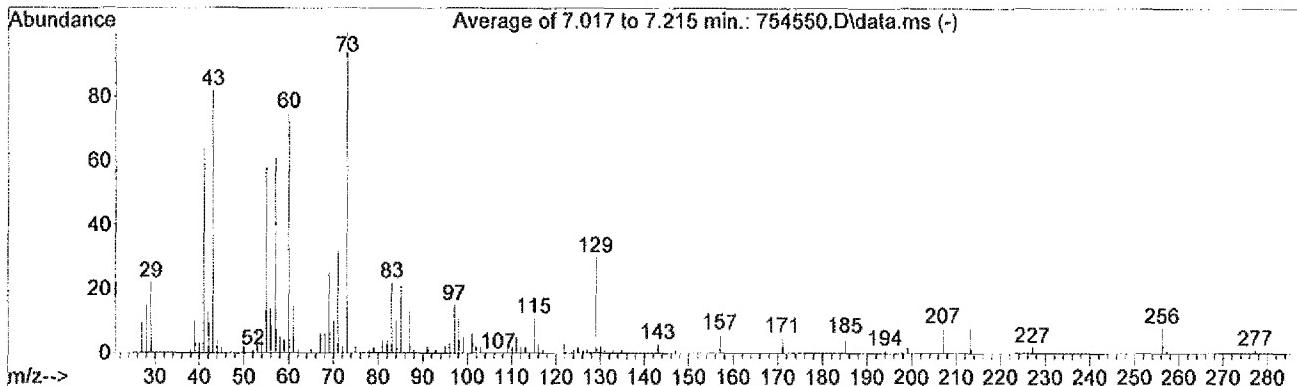
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 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
 C:\Database\NIST08.L Minimum Quality: 80  
 C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
8	7.05	C:\Database\NIST08.L		
		n-Hexadecanoic acid	000057-10-3	94
		n-Hexadecanoic acid	000057-10-3	91
		Pentadecanoic acid	001002-84-2	91



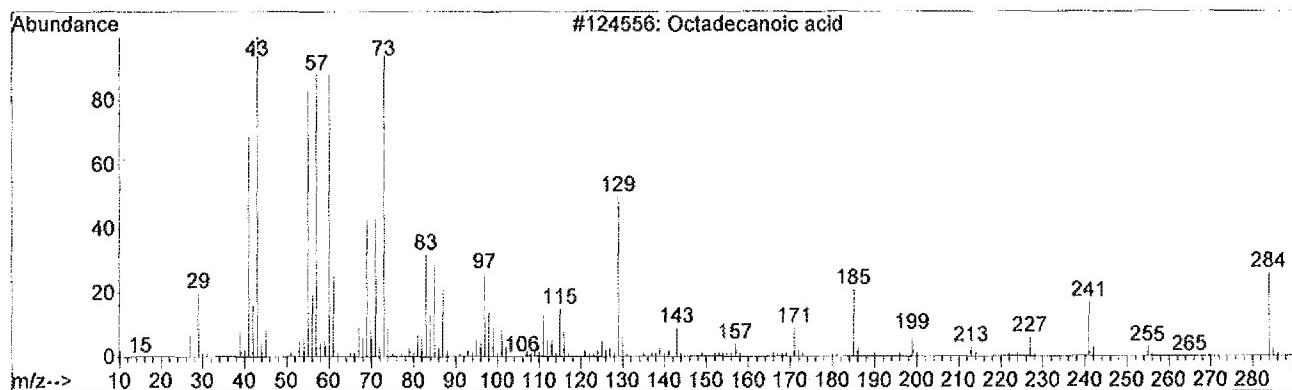
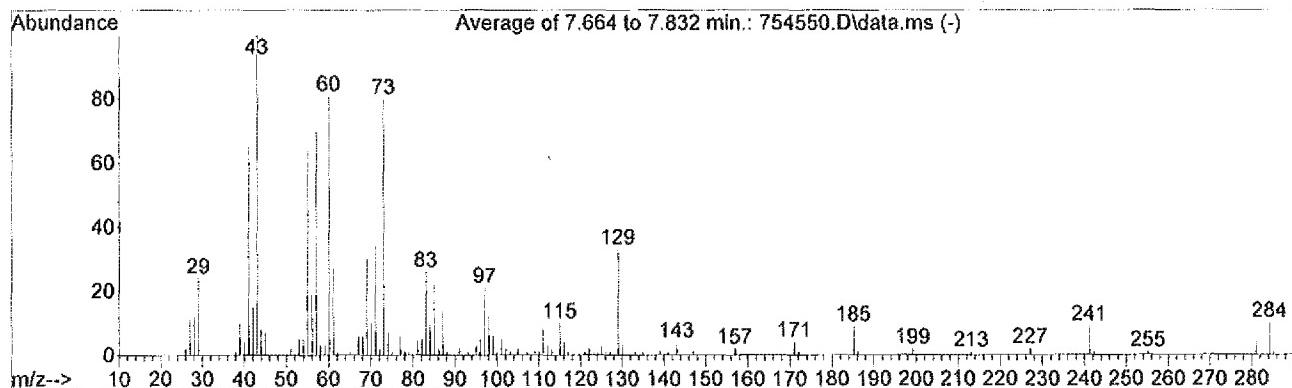
Area Percent / Library Search Report

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 Operator : P.PIRO  
 Date Acquired : 13 Nov 2010 8:22  
 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
 C:\Database\NIST08.L Minimum Quality: 80  
 C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
9	7.69	C:\Database\NIST08.L		
		Octadecanoic acid	000057-11-4	99
		Octadecanoic acid	000057-11-4	99
		Octadecanoic acid	000057-11-4	98



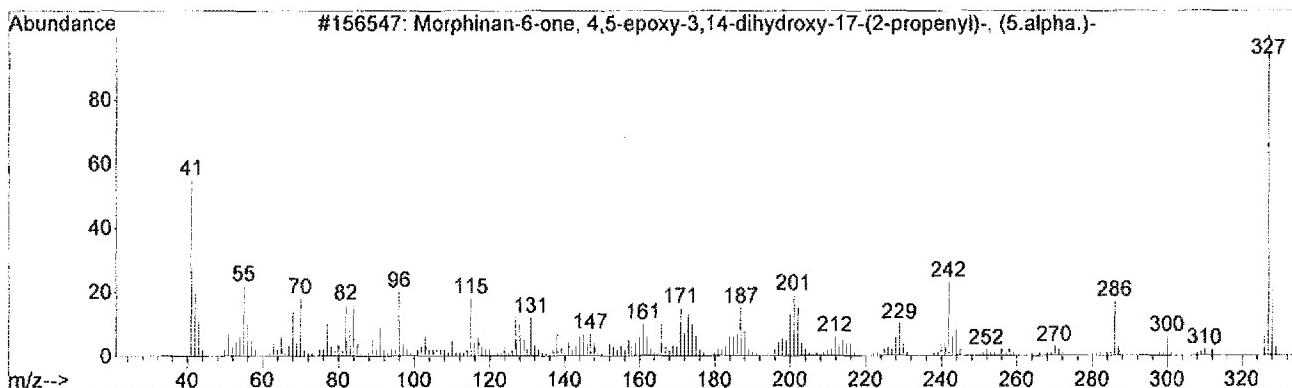
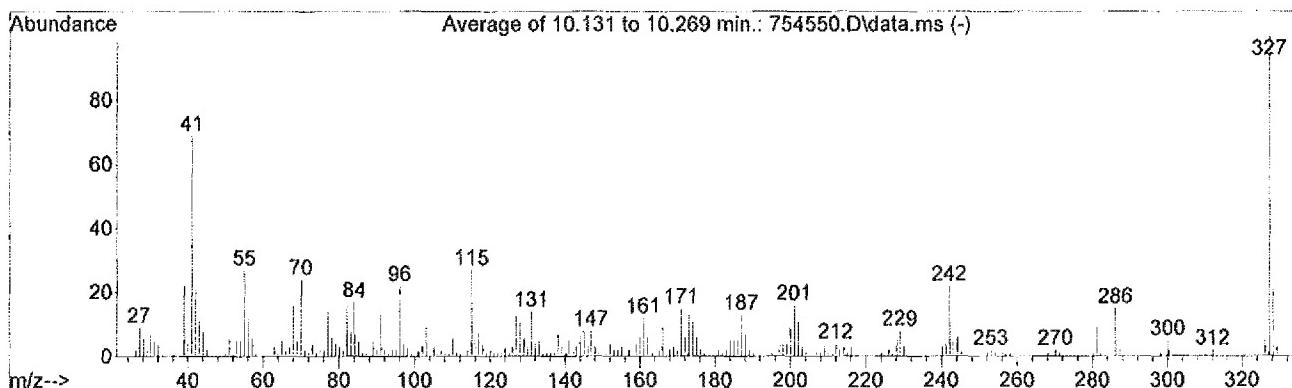
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 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
                   C:\Database\NIST08.L Minimum Quality: 80  
                   C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
10	10.19	C:\Database\NIST08.L		
		Morphinan-6-one, 4,5-epoxy-3,14-dih	000465-65-6	99
		Morphinan-6-one, 4,5-epoxy-3,14-dih	000465-65-6	95
		Morphinan-6-one, 4,5-epoxy-3,14-dih	000465-65-6	94



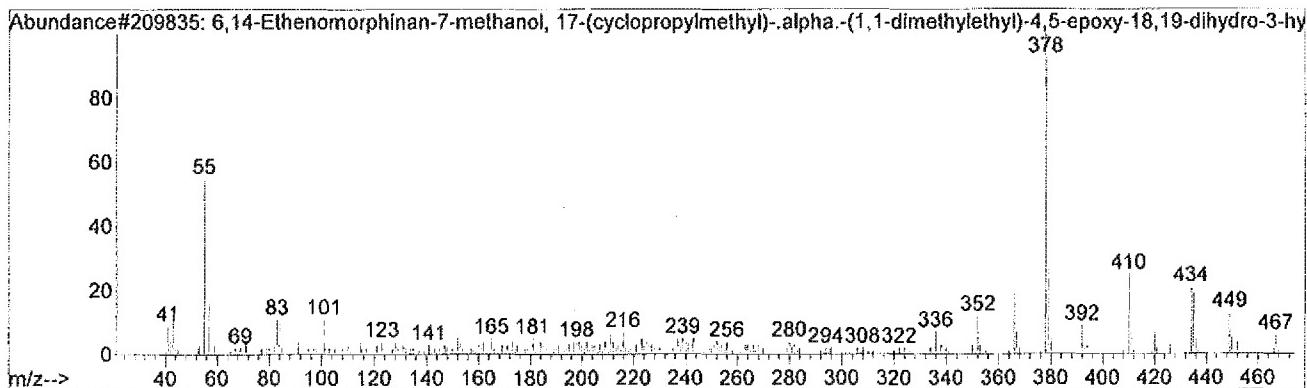
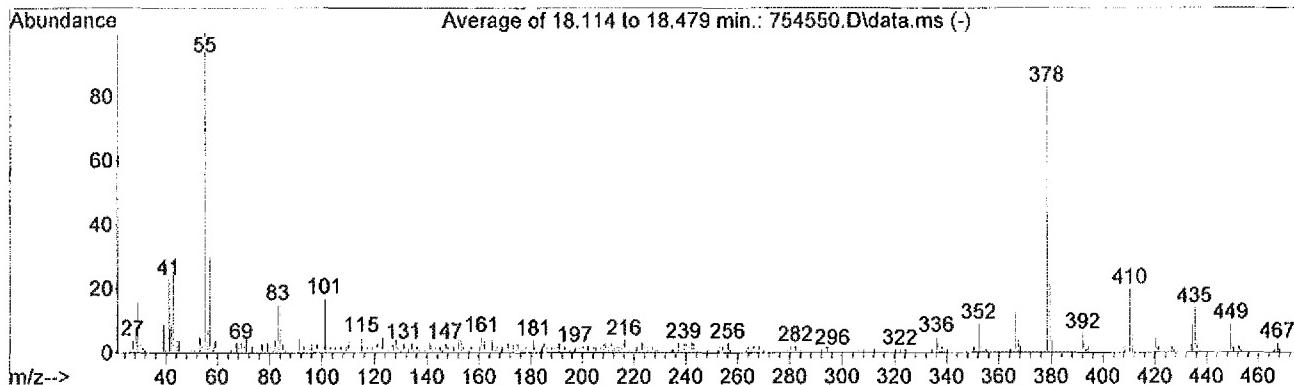
Area Percent / Library Search Report

Information from Data File:

File Name : D:\System8\11\_12\_10\754550.D  
 Operator : P.PIRO  
 Date Acquired : 13 Nov 2010 8:22  
 Sample Name : XXXXXXXXXX  
 Submitted by : ASD  
 Vial Number : 50  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries: C:\Database\SLI.L Minimum Quality: 80  
 C:\Database\NIST08.L Minimum Quality: 80  
 C:\Database\PMW\_TOX2.L

PK#	RT	Library/ID	CAS#	Qual
11	18.27	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	95



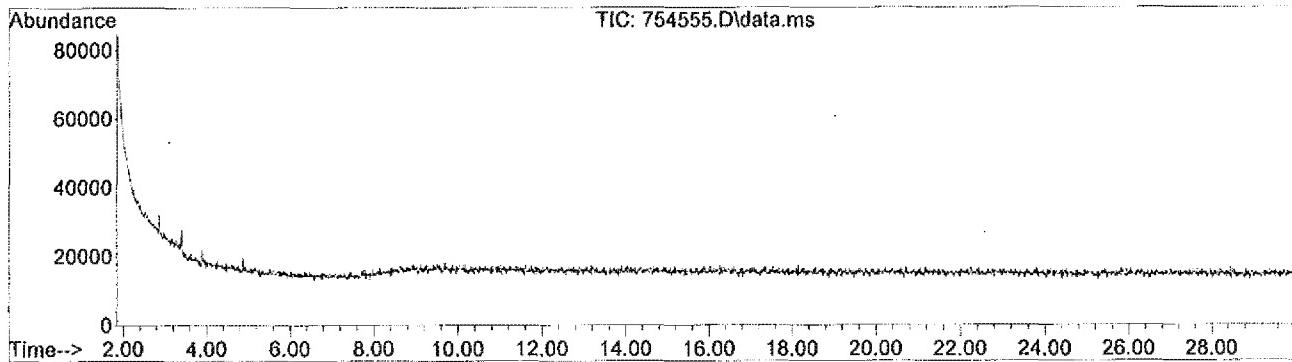
Area Percent / Library Search Report

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Information from Data File:

File Name : D:\System8\11\_12\_10\754555.D  
Operator : P.PIRO  
Date Acquired : 13 Nov 2010 11:07  
Sample Name : BLANK  
Submitted by : ASD  
Vial Number : 2  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

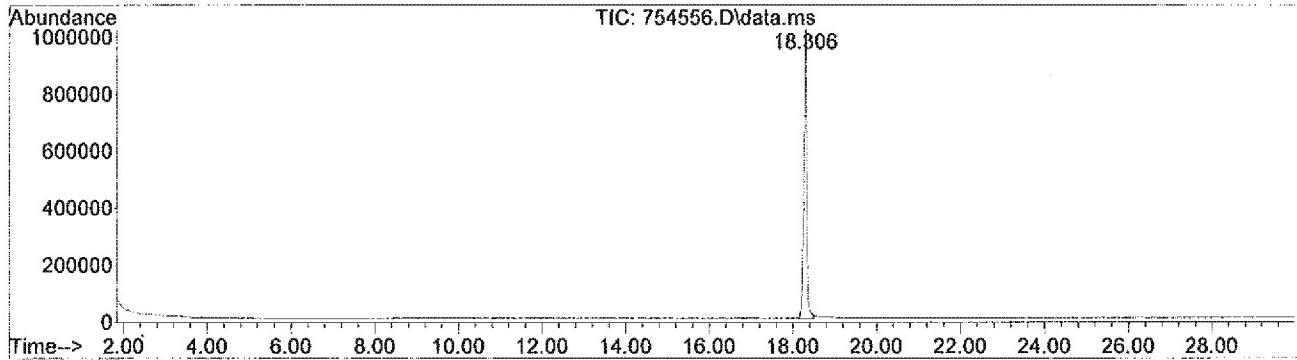
# Area Percent / Library Search Report

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Information from Data File:

File Name : D:\System8\11\_12\_10\754556.D  
Operator : P.PIRO  
Date Acquired : 13 Nov 2010 11:40  
Sample Name : BUPRENORPHINE STD  
Submitted by : ASD  
Vial Number : 35  
AcquisitionMeth: WSCREEN.M  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
18.306	4828475	100.00	100.00

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Area Percent / Library Search Report

Information from Data File:

File Name : D:\System8\11\_12\_10\754556.D  
 Operator : P.PIRO  
 Date Acquired : 13 Nov 2010 11:40  
 Sample Name : BUPRENORPHINE STD  
 Submitted by : ASD  
 Vial Number : 35  
 AcquisitionMeth: WSCREEN.M  
 Integrator : RTE

Search Libraries:	C:\Database\SLI.L	Minimum Quality: 80
	C:\Database\NIST08.L	Minimum Quality: 80
	C:\Database\PMW_TOX2.L	

PK#	RT	Library/ID	CAS#	Qual
1	18.31	C:\Database\NIST08.L		
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	99
		6,14-Ethenomorphinan-7-methanol,	17 052485-79-7	95

